



Monthly Wholesale Trade

Sales and Inventories

U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS

March 1997

BW/97-03
Issued May 1997

Notice of New Sample: The data in this report are based on a new sample and reflect the results from the latest Census of Wholesale Trade and the 1995 Annual Trade Survey. All selected firms are now requested to report each month, and the method of estimation has changed.

Sales. March 1997 sales of merchant wholesalers, after adjustment for seasonal variation and trading-day differences but not for price changes, were \$209.9 billion, down 0.9 percent (+/-0.6%) from the revised February level but up 6.4 percent (+/-1.5%) from March 1996. The February preliminary estimate was revised downward by \$0.3 billion or 0.1 percent. March sales of durable goods declined 1.7 percent (+/-1.1%) from February but were 4.2 percent (+/-2.9%) above March 1996. Compared to last month, sales of machinery, equipment and supplies were down 6.2 percent to \$15.1 billion and metals and minerals, except petroleum, fell 4.8 percent to \$8.4 billion. Among nondurable goods, sales of farm-product raw materials decreased 9.0 percent from last month to \$9.1 billion, while sales of groceries and related products increased 2.3 percent to \$28.0 billion.

Inventories. Total inventories of merchant wholesalers, after adjustment for seasonal variation but not for price changes, were \$259.9 billion at the end of March, up 0.7 percent (+/-0.4%) from the revised February level and 2.3 percent (+/-2.9%) above March 1996. The February preliminary estimate was revised downward by \$0.3 billion or 0.1 percent. End-

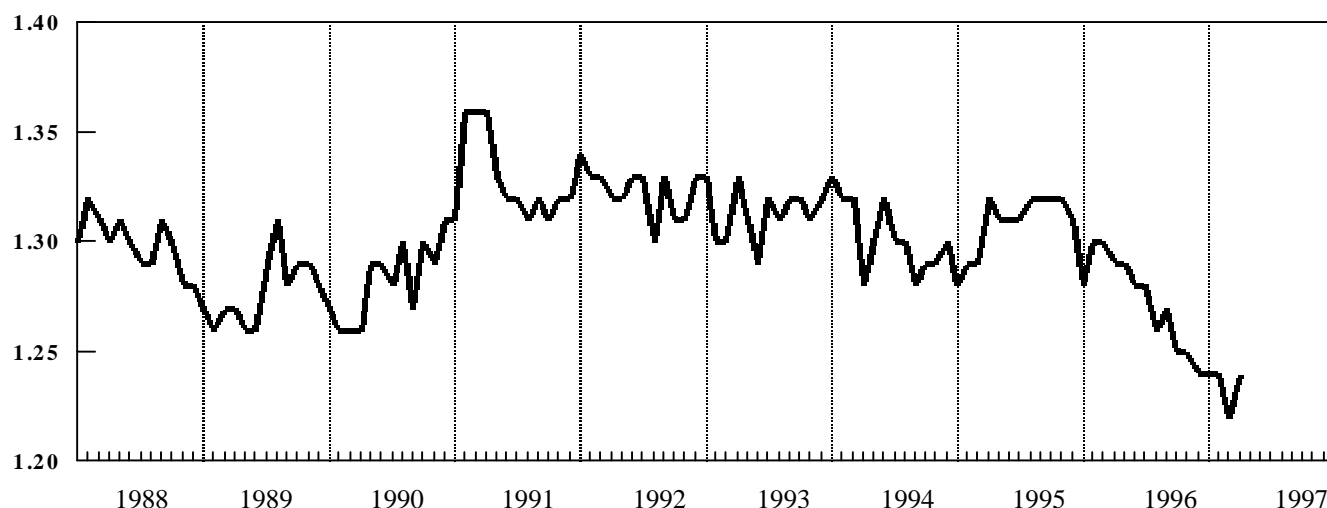
of-month inventories of durable goods wholesalers increased 0.9 percent (+/-0.5%) from last month and were 2.4 percent (+/-4.4%) above March 1996. Compared to last month, inventories of motor vehicles and automotive equipment increased 3.2 percent to \$27.5 billion, while furniture and home furnishings declined 2.9 percent to \$5.0 billion. Among nondurable goods, inventories of drugs, drug proprietaries and druggists' sundries increased 2.5 percent from last month to \$14.1 billion. Inventories of petroleum and petroleum products declined 4.5 percent from last month to \$5.3 billion.

Inventories/Sales Ratio. The March inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.24. The March 1996 ratio was 1.29.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling variability. A discussion of the reliability of the data and general survey methodology appears in BW/96-RV Current Business Report.

Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1988 to 1997

(Data adjusted for seasonal, and trading-day differences, but not for price changes)



Monthly Wholesale Trade for April is scheduled to be released June 6, 1997 at 10:00 a.m.

Address inquiries concerning this report to Services Division, Bureau of the Census, Washington, DC 20233, or call Ronald Piencykoski, (301) 457-2779 or 457-2764. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

This report is available on day of issue through the Department of Commerce's online Economic Bulletin Board (202-482-1986). The data are also available on the internet - <http://www.census.gov/svsd/www/mwts.html>.

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers: 1997 and 1996

[In millions of dollars]

SIC ¹ code	Kind of business	Sales						Inventories						Inventories/Sales		
		Monthly			Percent change			Monthly			Percent change					
		Mar. 1997 (P)	Feb. 1997 (F)	Mar. 1996 (F)	Mar./ Feb.	Feb./ Jan.	Mar. 97 Mar. 96	Mar. 1997 (P)	Feb. 1997 (F)	Mar. 1996 (F)	Mar./ Feb.	Feb./ Jan.	Mar. 97 Mar. 96	Mar. 1997 (P)	Feb. 1997 (F)	Mar. 1996 (F)
Adjusted ²																
	U.S. Total	209,876	211,801	197,334	-0.9	2.1	6.4	259,887	258,088	254,151	0.7	0.1	2.3	1.24	1.22	1.29
50	Durable	106,717	108,562	102,421	-1.7	2.7	4.2	164,505	162,997	160,700	0.9	0.3	2.4	1.54	1.50	1.57
501	Automotive	18,348	18,260	17,679	0.5	1.6	3.8	27,509	26,644	26,719	3.2	-1.7	3.0	1.50	1.46	1.51
502	Furniture	3,619	3,798	3,534	-4.7	2.1	2.4	4,969	5,118	5,201	-2.9	-3.5	-4.5	1.37	1.35	1.47
503	Lumber	7,259	7,526	6,763	-3.5	3.3	7.3	7,749	7,728	7,401	0.3	1.0	4.7	1.07	1.03	1.09
504	Prof. equip.	20,560	20,710	18,357	-0.7	5.8	12.0	22,152	22,425	22,645	-1.2	1.1	-2.2	1.08	1.08	1.23
505	Metals	8,352	8,777	7,900	-4.8	2.1	5.7	13,486	13,409	12,470	0.6	3.8	8.1	1.61	1.53	1.58
506	Electrical	14,684	14,635	14,867	0.3	1.8	-1.2	24,081	23,407	23,883	2.9	0.3	0.8	1.64	1.60	1.61
507	Hardware	6,194	6,171	5,706	0.4	0.4	8.6	11,963	12,237	11,284	-2.2	0.3	6.0	1.93	1.98	1.98
508	Machinery	15,138	16,145	15,803	-6.2	2.4	-4.2	36,270	35,918	35,389	1.0	0.0	2.5	2.40	2.22	2.24
509	Other Durable	12,563	12,540	11,812	0.2	2.7	6.4	16,326	16,111	15,708	1.3	0.8	3.9	1.30	1.28	1.33
51	Nondurable	103,159	103,239	94,913	-0.1	1.4	8.7	95,382	95,091	93,451	0.3	-0.2	2.1	0.92	0.92	0.98
511	Paper	7,521	7,547	6,836	-0.3	2.9	10.0	8,914	8,779	8,223	1.5	0.7	8.4	1.19	1.16	1.20
512	Drugs	9,593	9,407	8,209	2.0	2.7	16.9	14,137	13,790	12,370	2.5	-1.1	14.3	1.47	1.47	1.51
513	Apparel	7,255	7,546	6,098	-3.9	0.7	19.0	12,144	12,025	11,648	1.0	0.5	4.3	1.67	1.59	1.91
514	Groceries	28,036	27,418	25,960	2.3	2.5	8.0	17,481	17,740	17,543	-1.5	-0.1	-0.4	0.62	0.65	0.68
515	Farm-products	9,130	10,032	10,778	-9.0	2.1	-15.3	9,579	9,525	11,966	0.6	1.8	-19.9	1.05	0.95	1.11
516	Chemicals	4,476	4,543	4,316	-1.5	0.1	3.7	4,730	4,696	4,580	0.7	-1.2	3.3	1.06	1.03	1.06
517	Petroleum	16,077	16,215	14,248	-0.9	-4.3	12.8	5,279	5,525	5,104	-4.5	-3.2	3.4	0.33	0.34	0.36
518	Alcohol	4,855	4,714	4,695	3.0	2.2	3.4	4,947	4,871	4,862	1.6	-1.7	1.7	1.02	1.03	1.04
519	Other Nondur.	16,216	15,817	13,773	2.5	4.1	17.7	18,171	18,140	17,155	0.2	-0.1	5.9	1.12	1.15	1.25
Not Adjusted														Sales to date		
	U.S. Total	212,437	193,344	199,654	9.9	-3.0	6.4	260,304	261,022	254,869	-0.3	-0.7	2.1	605,030	573,377	
50	Durable	109,158	98,118	104,758	11.3	-0.4	4.2	163,948	163,282	160,165	0.4	0.5	2.4	305,813	294,703	
501	Automotive	19,394	16,580	18,864	17.0	1.2	2.8	27,399	27,736	26,639	-1.2	0.6	2.9	52,364	51,797	
502	Furniture	3,557	3,384	3,492	5.1	2.6	1.9	4,954	5,011	5,191	-1.1	-3.0	-4.6	10,240	9,812	
503	Lumber	7,041	6,329	6,641	11.2	-0.2	6.0	8,121	7,890	7,764	2.9	4.0	4.6	19,711	18,301	
504	Prof. equip.	21,465	18,908	19,183	13.5	-2.3	11.9	22,152	22,201	22,645	-0.2	-1.5	-2.2	59,719	53,637	
505	Metals	8,586	8,294	8,129	3.5	-2.1	5.6	13,607	13,275	12,582	2.5	1.5	8.1	25,349	24,367	
506	Electrical	14,919	13,347	15,060	11.8	-1.5	-0.9	23,431	23,360	23,262	0.3	0.2	0.7	41,813	42,759	
507	Hardware	5,816	5,313	5,375	9.5	-3.9	8.2	12,071	12,188	11,386	-1.0	1.9	6.0	16,660	15,587	
508	Machinery	15,955	14,853	16,356	7.4	1.5	-2.5	36,524	36,026	35,601	1.4	1.2	2.6	45,440	46,086	
509	Other Durable	12,425	11,110	11,658	11.8	1.2	6.6	15,689	15,595	15,095	0.6	-0.8	3.9	34,517	32,357	
51	Nondurable	103,279	95,226	94,896	8.5	-5.4	8.8	96,356	97,740	94,704	-1.4	-2.5	1.7	299,217	278,674	
511	Paper	7,476	7,064	6,809	5.8	-6.0	9.8	8,950	8,797	8,256	1.7	-1.3	8.4	22,054	20,228	
512	Drugs	9,392	8,645	7,971	8.6	-11.3	17.8	14,024	14,024	12,271	0.0	-6.8	14.3	27,784	24,755	
513	Apparel	7,639	7,471	6,482	2.2	8.4	17.8	11,780	12,169	11,310	-3.2	-2.5	4.2	22,004	17,417	
514	Groceries	28,092	24,704	25,778	13.7	-6.9	9.0	17,096	17,190	17,157	-0.5	-3.7	-0.4	79,331	76,342	
515	Farm-products	9,413	9,811	11,091	-4.1	-10.5	-15.1	10,719	11,697	13,390	-8.4	-3.5	-19.9	30,185	33,571	
516	Chemicals	4,552	4,275	4,376	6.5	-4.1	4.0	4,825	4,785	4,672	0.8	2.0	3.3	13,287	12,669	
517	Petroleum	15,434	15,307	13,920	0.8	-12.6	10.9	5,089	5,348	4,905	-4.8	-3.5	3.8	48,258	41,044	
518	Alcohol	4,433	3,809	4,324	16.4	1.7	2.5	4,848	4,647	4,765	4.3	0.1	1.7	11,988	12,144	
519	Other Nondur.	16,848	14,140	14,145	19.2	6.0	19.1	19,025	19,083	17,978	-0.3	0.5	5.8	44,326	40,504	

p Preliminary estimate. r Revised.

1 For a full description of the SIC Codes shown above see the "1987 Standard Industrial Classification Manual" or the Current Business Reports

*Combined Annual and Revised Monthly Wholesale Trade" publication.

2 Data adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for seasonal adjustment factors used.

Table 2. Coefficients of Variation and Standard Error for Sales and Inventories

SIC code	Kind of business	Coefficients of variation for level (x 100)				Standard error for trend				Coefficients of variation for level (x 100)		Standard error for trend
		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year to Year Estimates		Cumulative sales estimates		Current year cumulative to previous year
		Sales	Inv	Sales	Inv	Sales	Inv	Sales	Inv	CY	PY	cumulative
		Median	Median	Median	Median	Median	Median	Median	Median			
	U.S. Total	1.5	1.9	1.4	1.9	0.5	0.3	0.9	1.0	1.3	1.4	0.9
50	Durable	2.3	2.8	2.2	2.7	0.6	0.3	1.2	1.4	2.0	1.8	1.0
501	Automotive	3.3	5.4	3.0	5.4	1.7	0.7	2.7	3.1	3.1	3.3	2.2
502	Furniture	12.6	11.5	12.5	10.7	2.5	1.0	4.2	3.5	12.6	10.4	4.7
503	Lumber	3.9	4.7	4.1	4.8	1.2	0.5	3.0	2.5	3.6	6.0	3.8
504	Prof. equip.	7.6	5.6	7.1	5.6	1.9	0.7	4.3	4.1	6.7	6.2	2.8
505	Metals	4.3	5.6	3.9	5.7	1.4	0.6	3.0	3.6	3.8	3.8	1.4
506	Electrical	4.5	4.4	4.3	4.2	1.5	0.4	3.0	2.1	3.8	4.8	3.8
507	Hardware	4.4	5.3	4.2	5.2	1.7	0.7	2.8	3.3	3.8	6.2	4.5
508	Machinery	4.6	5.4	4.4	5.2	1.7	0.6	4.8	3.1	4.3	4.7	1.8
509	Other Durable	5.3	5.0	4.8	4.9	3.2	1.1	4.0	3.4	4.4	6.6	3.6
51	Nondurable	2.2	2.2	2.2	2.2	0.5	0.5	1.3	1.3	2.1	2.2	1.1
511	Paper	5.4	5.4	5.2	5.2	1.1	1.1	2.3	2.3	4.8	4.6	1.8
512	Drugs	7.9	7.9	7.8	7.8	1.5	1.5	3.2	3.2	7.5	8.1	2.1
513	Apparel	6.1	6.1	5.7	5.7	2.5	2.5	5.5	5.5	5.3	6.4	4.6
514	Groceries	3.8	3.8	3.8	3.8	1.2	1.2	2.1	2.1	3.6	3.9	2.1
515	Farm-products	4.4	4.4	4.1	4.1	1.8	1.8	4.8	4.8	3.6	4.1	3.5
516	Chemicals	5.7	5.7	5.4	5.4	2.2	2.2	5.8	5.8	5.1	8.5	6.5
517	Petroleum	8.2	8.2	8.3	8.3	0.8	0.8	2.8	2.8	8.0	7.0	2.8
518	Alcohol	6.1	6.1	6.5	6.5	2.2	2.2	2.3	2.3	6.0	6.6	2.5
519	Other Nondur.	7.0	7.0	6.4	6.4	1.8	1.8	3.4	3.4	5.7	6.9	3.6

Note: The median measures of variability are based on the most recent 6 months of data.

Sample Design and Reliability of Data

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the trend estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is $\pm 1.65 \times 0.9\%$ or $\pm 1.5\%$, and the 90% confidence interval is -0.3% to +2.7%. If the interval contains 0, it cannot be stated with certainty whether there was an increase or decrease. For monthly level, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value $\pm 1.65 \times CV \times$ (the estimated value).

Nonsampling errors are usually attributed to many possible sources: (1) coverage error - failure to accurately represent all population units in the sample, (2) inability to obtain

information about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of collection or processing, or in imputing for missing or inconsistent data. Coverage error has an effect on the accuracy of estimates for this survey to the extent that the administrative records system, which forms the basis of our survey universe frame, does not contain all legal businesses. A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For all kinds of businesses combined, imputed data amount to about 26 percent of the total monthly wholesale sales estimates and 28 percent of the total monthly wholesale inventories estimates.

Nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

Official Business

Penalty for Private Use, \$300

Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers

SIC code	Kind of business	Sales						Inventories					
		1997				1996	1996	1997				1996	1996
		Apr.	Mar.	Feb.r	Jan.	Dec.	Mar.r	Apr.	Mar.	Feb.r	Jan.	Dec.	Mar.r
	U.S. Total¹	1.008	1.012	0.914	0.958	0.987	1.009	1.010	1.002	1.013	1.022	1.004	1.002
50	Durable	1.003	1.024	0.905	0.931	0.982	1.023	1.010	0.998	1.003	1.000	0.987	0.999
501	Automotive	1.053	1.057	0.908	0.912	0.998	1.067	1.026	0.996	1.041	1.017	0.976	0.997
502	Furniture	1.007	0.983	0.891	0.887	0.976	0.988	0.984	0.997	0.979	0.974	0.974	0.998
503	Lumber	1.022	0.970	0.841	0.870	0.860	0.982	1.030	1.048	1.021	0.992	0.987	1.049
504	Prof. equip.	0.952	1.044	0.913	0.988	1.046	1.045	1.003	1.000	0.990	1.016	1.008	1.000
505	Metals	1.045	1.028	0.945	0.985	0.915	1.029	1.007	1.009	0.990	1.012	1.015	1.009
506	Electrical	0.968	1.016	0.912	0.942	0.965	1.013	0.990	0.973	0.998	0.999	0.980	0.974
507	Hardware	0.983	0.939	0.861	0.900	0.940	0.942	1.008	1.009	0.996	0.981	0.991	1.009
508	Machinery	1.035	1.054	0.920	0.928	0.996	1.035	1.015	1.007	1.003	0.991	0.985	1.006
509	Other Durable	0.936	0.989	0.886	0.899	1.016	0.987	0.987	0.961	0.968	0.983	0.971	0.961
51	Nondurable	1.016	1.001	0.922	0.987	0.991	0.997	1.013	1.012	1.031	1.059	1.032	1.013
511	Paper	0.987	0.994	0.936	1.025	0.988	0.996	1.024	1.004	1.002	1.023	1.022	1.004
512	Drugs	1.020	0.979	0.919	1.064	1.033	0.971	1.002	0.992	1.017	1.079	1.030	0.992
513	Apparel	0.939	1.053	0.990	0.920	0.792	1.063	0.954	0.970	1.012	1.043	1.013	0.971
514	Groceries	0.992	1.002	0.901	0.992	1.004	0.993	0.989	0.978	0.969	1.005	1.019	0.978
515	Farm-products	0.997	1.031	0.978	1.116	1.061	1.029	1.015	1.119	1.228	1.296	1.222	1.119
516	Chemicals	1.047	1.017	0.941	0.983	0.922	1.014	1.009	1.020	1.019	0.987	0.992	1.020
517	Petroleum	1.027	0.960	0.944	1.034	1.015	0.977	0.990	0.964	0.968	0.971	1.024	0.961
518	Alcohol	1.012	0.913	0.808	0.812	1.099	0.921	1.008	0.980	0.954	0.937	0.922	0.980
519	Other Nondur.	1.104	1.039	0.894	0.878	0.962	1.027	1.082	1.047	1.052	1.046	0.984	1.048



r Revised

1 Adjusted sales and inventories data shown in table 1 are obtained by dividing the unadjusted data by the adjustment factors shown above for the corresponding group. Adjusted data for the totals are obtained by adding the durable and nondurable goods. Seasonal factors shown for the totals will provide an approximation of the adjusted estimates, but may show small differences from the published data.

Note: The seasonal factors shown have been computed based on monthly estimates through the current month preliminary estimates.